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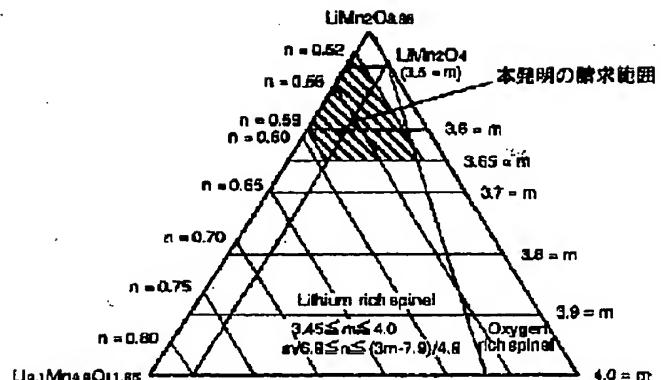
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TITLE : LITHIUM MANGANESE COMPOUND  
 OXIDE, ITS PRODUCTION AND ITS  
 USE



LiMn<sub>2</sub>O<sub>4.85</sub>–Li<sub>4.1</sub>Mn<sub>4.9</sub>O<sub>11.85</sub>–Li<sub>2</sub>Mn<sub>3</sub>O<sub>6</sub>系三角ダイアグラム  
 による非化学量論組成のスピネル化合物の表示  
 (斜線部は特許請求範囲を表す)

ABSTRACT : PROBLEM TO BE SOLVED: To produce a lithium manganese compound oxide for the positive electrode of a lithium cell.

SOLUTION: The lithium manganese compound oxide is a compd. consisting of Li, Mn and O, represented by the formula  $Li_{1+x}Mn_{2-y}O_4$  (where  $-0.01 < x < 0.15$  and  $0 < y < 0.15$ ) and having a cubic spinel structure. The atomic ratio of Li to Mn is 0.52-0.59 and the average oxidation number of Mn is 3.45-3.65. The multiple oxide has 0.821-0.824 nm lattice constant, 60-180 nm crystallite diameter and 1.0-3.7 m<sup>2</sup>/g BET specific surface area, contains at least  $\geq 3\%$  primary particles having  $\geq 1 \mu m$  particle diameter and has 1.0-15.0  $\mu m$  median diameter on the particle size distribution curve measured by a laser diffraction scattering method, an aggregation index of 5-20 and  $\geq 55\%$  press molding density.

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